

REMARKS

Claims 1-12 are pending in the present Application. Claims 1, 5, and 11 have been amended, Claim 12 has been canceled, and no claims have been added, leaving Claims 1-11 for consideration upon entry of the present amendment.

Claims 1 and 5 have been amended to include the phrase “for coating a pre-coated metal sheet”, support for which can be found at least in the Specification on p. 1, lines 14-15 and p. 4, lines 17-18. Claims 1 and 5 have also been amended to include a solvent comprising cyclohexanone, isophorone, or a combination, support for which can be found at least in the Specification on p. 7, lines 1-4. Claims 1 and 5 have also been amended to include a limitation to Gardner bubble viscosity of X to Z3, support for which can be found in the Specification at least on p. 12, line 17. Finally, Claims 1 and 5 are each amended to include the pencil hardness limitation according to NCCA-II-12 of Claim 12. Accordingly, Claim 12 is canceled upon entry of the present amendment.

Claim 11 has been amended to correct the recited acid value limitation of “13 to 30 mgKOH/g” to “15 to 30 mgKOH/g”. Support for the amendment can be found in the Specification at least on p. 5, line 17, and p. 9, line 21.

No new matter has been introduced with these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1-12 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the Specification in such a way as to reasonably convey to one skilled in relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. In particular, Claims 1 and 5 are rejected as having insufficient support for the acid value for the “resin composition” of 10 to 30 mgKOH/g, and similarly, Claim 11 is rejected as having insufficient support for the acid value of the “resin composition” of 13-30 mgKOH/g. Applicants respectfully traverse these rejections.

Claim 11 has been amended to remove the inadvertently included *hydroxyl* value of 13 mgKOH/g and replace with the above *acid* value of 15 mgKOH/g, as noted by the Examiner and supported as described hereinabove.

Applicants respectfully note that the independent Claims 1 and 5, and dependent Claim 11, each clearly distinguish between the acryl modified polyester resin composition and its subsequent properties (e.g., Gardner viscosity as claimed in the amended Claims 1 and 5), the properties of a paint which includes the acryl modified polyester resin composition (e.g., pencil hardness), and the properties of the constituent polyester resin intermediate and the polyester resin from which the polyester resin intermediate is immediately prepared (e.g., hydroxyl number and acid number). The limitation to which the acid number limitation applies is therefore to the polyester resin intermediate and to its immediate polyester resin precursor. Applicants note the Examiner's use of the term "resin composition" in the rejection, and assume that in doing so the Examiner thus refers to the acryl modified polyester resin composition, which is provided only after copolymerization with acryl monomers. Applicants therefore respectfully point out that there is no basis for the Examiner's associating of the properties of the polyester resin intermediate and polyester resin with that of the acryl modified polyester resin composition.

As claimed in Claims 1 and 5, the upper acid number limitation of 30 mgKOH/g, and lower acid number limitation of 10 mgKOH/g, each for the for the polyester resin intermediate, and are implicitly supported in the Examples (see e.g., Example 1). The Examiner has acknowledged the acid number of 10 mgKOH/g from this Example, for the polyester resin, from which the lower limit is derived. See Office Action dated October 30, 2006, p. 3, first full paragraph, about lines 5-8. Satisfaction of the description requirement under 35 U.S.C. § 112, first paragraph ensures that claims presented subsequent to the filing date of the application was sufficiently disclosed at the time of filing, so that the prima facie date of invention can fairly be held to be the filing date of the application. See, *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562, 19 U.S.P.Q.2d 1111, 1115 (Fed. Cir. 1991). However, in order to determine whether an application meets the "written description" requirement with respect to later-filed claims, the application need not describe the claimed subject matter in exactly the same terms as used in the claims, *In re Lukach*, 442 F.2d 967, 969, 169 U.S.P.Q. 795 (C.C.P.A. 1971). It must simply indicate to those of ordinary skill in the art that as of the filing date the applicant had invented what is now claimed. *Id.*, at 1563, 19 U.S.P.Q.2d at 1116; see *In re Wertheim*, 541 F.2d 257, 191 U.S.P.Q. 90, (C.C.P.A. 1976). It is clear that the Examples support an acid number of 10 mgKOH/g for the immediate precursor to the polyester resin intermediate, and thus provide a *de-*

facto lower limit for the acid number for the resultant polyester resin intermediate, which is prepared immediately thereafter. The limitation to the lower limit of 10 mgKOH/g in combination with the claimed acid value upper limit of 30 mgKOH/g in Claims 1, 5, and 11 further encompasses the claimed acid value of 15 mgKOH/g for the polyester resin intermediate as claimed in amended Claim 11, and as disclosed in Example 1 (see Specification p. 9, line 21). Thus, there is full support for the claimed overall range of acid values of 10 to 30 mgKOH/g in Claims 1 and 5, and for the claimed narrower range of acid values of 15 to 30 mgKOH/g as claimed in Claim 11. Applicants believe it is therefore adequately disclosed in the specification and will be appreciated by one skilled in the art that an acid value from 10 to 30 mgKOH/g is fully supported, and that the Applicants have in fact invented and were in possession of polyester resin intermediates with acid values of 10 to 30 mgKOH/g at the time of filing. Applicants therefore respectfully request the Examiner reconsider and withdraw the rejections to amended Claims 1 and 5, and to Claim 11 as amended, and allow the claims.

Claim Rejections Under 35 U.S.C. § 102(e)

Claims 1-10 stand rejected under 35 U.S.C. § 102(e), as allegedly anticipated by U.S. Publication No. 2004/0044117 A1 ("Liptak"). Applicants respectfully traverse this rejection.

Liptak teaches a composition for coating food cans that comprises a polyester, an acrylic copolymer and a crosslinker. (see Abstract) Liptak teaches that the acrylic copolymer is a polymer formed by combining various acrylic monomers. See page 2, paragraph [0013]. The claimed invention in contrast is directed to an acryl-modified polyester resin composition produced by a polymerization of a polyester resin intermediate, and an acryl monomer, as claimed in Claims 1 and 5. Liptak also discloses an acid value of "less than about 10" mg KOH/g for the polyester resin. See p. 1, paragraph [0008]. Liptak discloses solvents including esters, glycol ethers, glycols, ketones, aromatic and aliphatic hydrocarbons, alcohols, and the like. See p. 3, paragraph [0023].

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

Independent Claims 1 and 5 have each been amended to include the limitations of Claim 12, not currently under rejection as anticipated by Liptak. Further, though Liptak discloses

solvents generally, and specific classes of solvents including ketones, Liptak is silent as to the inclusion of cyclohexanone and isophorone, or a combination, as claimed in instant Claims 1 and 5. Finally, Liptak does not disclose either the Gardener viscosity as claimed in instant Claims 1 and 5, and fails to disclose the specific limitation of pencil hardness of a paint which is prepared using the acryl modified polyester resin as claimed in Claim 12, incorporated into instant Claims 1 and 5 as amended. Thus, for at least the foregoing reasons, Liptak fails to disclose all elements of instant Claims 1 and 5 and their dependents, and therefore, does not anticipate the claims. Reconsideration and allowance are respectfully requested.

Claim Rejections Under 35 U.S.C. § 103(a)

Claim 12 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Liptak in view of either U.S. Patent No. 4,751,267 ("Berghoff"), JPO abstract of JP 63309533 A ("Miura"), or JPO abstract of JP 200108286 ("Yano"). Applicants respectfully traverse these rejections.

Berghoff discloses a cross-linked blend of an acrylic polymer, a polyester, and an amine cross-linking resin. Abstract. Berghoff discloses MAK as a solvent (methyl-amyl ketone). Col. 8, lines 48, 58, and 66.

Miura discloses a paint film comprising an acryl polyester resin, a cellulosic resin, and a surface-roughening substance. Abstract. Specific surface roughness of the film is achieved. Abstract.

Yano discloses a film comprising a polyester film and a paint film comprising an acryl polyester resin, that is corona treated to provide an antistatic surface an adhesion. Abstract.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970);

Amgen v. Chugai Pharmaceuticals Co., 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Liptak discloses hydroxy values for the polyester of 30 to 70 mgKOH/g, preferably about 40 mgKOH/g, and acid value of *less than about* 10 mgKOH/g, but fails to disclose or teach an acid value of 10 to 30 mgKOH/g, and further fails to teach or disclose a hydroxyl value of 1 to 20 mgKOH/g as claimed in instant Claims 1 and 5. See Liptak, p. 1, paragraph [0008]. Berghoff discloses an acid number of 10 to 20 mgKOH/g for the acrylic polymer disclosed therein, but fails to teach an acid number for a polyester resin intermediate as claimed in the instant Claims 1 and 5. Berghof, Col. 4, lines 30-38. Yano and Miura are each silent as to acid or hydroxy numbers. Thus, Berghoff, Yano, and Miura each fail to remedy the deficiency of Liptak as to acid and hydroxyl values, and thus alone or separately fail to disclose or teach all elements of the instant claims as claimed in instant Claims 1 and 5.

In addition, none of the references teaches or discloses either the property of Gardner bubble viscosity of a range of X to Z3 as claimed in amended instant Claims 1 and 5, or the specific solvents (cyclohexanone and isophorone) claimed in instant Claims 1 and 5. Thus, for at least the above reasons, neither Liptak, Berghoff, Miura, nor Yano, nor a combination of these, teach all elements of the instant claims, and therefore the instant claims are not unpatentable over these references. Accordingly, withdrawal of the rejection and allowance of the claims is respectfully requested.

Further, Liptak, Berghoff, Yano, and Miura are each silent as to pencil hardness of a paint prepared using the acryl modified polyester resin composition claimed in Claims 1 and 5. The Examiner has stated that it would be obvious for one skilled in the art to use Liptak's disclosed acryl/polyester resin composition, and that a paint prepared thereby must possess the same physical properties. Applicants respectfully disagree. As discussed hereinabove, Liptak fails to disclose all elements of the instant claims, and thereby does not disclose an acryl modified polyester resin composition identical to that claimed. Further, one skilled in the art will readily appreciate that use of a polymer with different properties (composition, acid number, hydroxyl number, as in the acrylic polyester resin of Liptak) can significantly affect the properties of any composition prepared therefrom, and thus a paint prepared with components that differ from those disclosed would provide no expectation for success, particularly for a property (i.e., pencil hardness) that is not specified in any of the references from which the materials are being drawn.

Even assuming that all elements of an invention are disclosed in the prior art, an Examiner cannot establish obviousness by locating references that describe various aspects of a patent applicant's invention without also providing evidence of the motivating force which would have impelled one skilled in the art to do what the patent applicant has done. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. Int. 1993). The references, when viewed by themselves and not in retrospect, must suggest the invention. *In Re Skoll*, 187 U.S.P.Q. 481 (C.C.P.A. 1975). Thus, apart from the fact that the references combined fail to teach all elements of Claims 1 and 5, there is no reasonable expectation that any combination of the cited references would provide the claimed invention, and thus Claims 1 and 5, and their dependents, are not unpatentable over the references. Reconsideration and allowance are therefore respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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